



Electric Power Transmission and Distribution (EPTD)
Future Grid Challenges
Program Opportunity Notice (PON) 4393
Round 3

*All, some, or none, of the available funds may be awarded
NYSERDA reserves the right to extend and/or add funding to the
Solicitation should other program funding sources become available.*

Round 3 Proposals Due: November 2, 2022 by 3:00 PM EST

The New York State Energy Research and Development Authority (NYSERDA) will issue a series of challenges through 2023 that have been defined in collaboration with the Joint Utilities of New York and NYSERDA internal teams. Each challenge presents an opportunity to improve the performance and validate value propositions for the electric power delivery system as it evolves with increasing renewable penetration. The projects also help establish a pathway for products and services to gain market entry by addressing existing technical and economic barriers. This PON will target the recommendations made by the Advanced Technology Working Group (ATWG) that were issued by the Department of Public Service (DPS) Case 20-E-0197, Order on Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act.

Each round of this solicitation may have one or more challenges with available funding caps set per challenge. Program updates can be found on NYSERDA's Smart Grid website:

<https://www.nyserda.ny.gov/All-Programs/Programs/Smart-Grid-Program>

Submissions must demonstrate significant improvements over the current state addressed by the challenges. The primary objective of the program is to accelerate the stakeholder's operational goals that promote a high performing smart grid with a diverse supply of clean energy generation resources, enhanced overall electric grid performance and enable customers to reduce their energy costs, energy consumption, and environmental impacts. Additional objectives include the development of smart grid technologies and their commercialization and deployment in New York State.

Round	Future Grid Challenge	Proposal Due Date ¹
3	Open	November 2, 2022
1 - Dates are subject change. Proposers should check NYSERDA's website for the latest updates		

Proposal Submission – Online submission is preferable. Proposers may submit Word, Excel, or PDF files (file formats include csv, doc, docx, gif, jpeg, jpg, pdf, png, ppt, pptx, pps, ppsx, tif, txt, xls,xlsx, and zip). Individual files should be 100MB or less in file size. Proposal PDFs should be searchable and should be created by direct conversion from MS Word, or other conversion utility. Files should not be scanned. For

ease of identification, all electronic files must be named using the proposer's entity name in the title of the document. NYSERDA will also accept proposals by mail or hand-delivery if online submission is not possible. For detailed instructions on how to submit a proposal (online or paper submission), click the link "[Application Instructions and Portal Training Guide](#) [PDF]" located in the "Current Opportunities" section of NYSERDA's website (<https://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities.aspx>).

No communication intended to influence this procurement is permitted except by contacting Christopher Cheng (Designated Contact), (518) 862-1090 ext 3436 or Michael Razanousky (Designated Contact) (518) 862-1090 ext 3245 or by e-mail smartgrid@nyserda.ny.gov. If you have contractual questions concerning this solicitation, contact Venice Forbes, (518) 862-1090 ext 3507 or by email venicesolicitations@nyserda.ny.gov. Contacting anyone other than the Designated Contacts (either directly by the proposer or indirectly through a lobbyist or other person acting on the proposer's behalf) in an attempt to influence the procurement: (1) may result in a proposer being deemed a non-responsible offered, and (2) may result in the proposer not being awarded a contract.

*** All proposals must be received by 3 p.m. Eastern Time on the date noted above. Late, faxed, or emailed proposals will not be accepted.** Incomplete proposals may be subject to disqualification. It is the proposer's responsibility to ensure that all pages have been included in the proposal. Please note for online submission, there are required questions that you will have to answer in addition to uploading attachments and you should allot at least 60 minutes to enter/submit proposals. The online proposal system closes promptly at 3 p.m. Eastern Time, files in process or attempted edits or submission after 3 p.m. Eastern Time on the date above, will not be accepted. If changes are made to this solicitation, notification will be posted on the "Current Opportunities" section of NYSERDA's website (<https://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities.aspx>).

I. INTRODUCTION

The future transmission and distribution system will be dramatically different from that which is in place today. Systematic improvements to grid investments and operations are possible at all levels of the grid and are an essential element of the transformation of the grid and enable market development envisioned by the Climate Leadership and Community Protection Act. In 2016, the Joint Utilities of New York filed their first Distributed System Implementation Plan (DSIP) that describes current capabilities and future goals. Each utility has since filed DSIP updates that include their unique system challenges. This solicitation seeks to make investments that accelerate the realization of an advanced, digitally enhanced and dynamically managed high-performing electric grid for New York State. The focus of this solicitation will enable innovative solutions that directly address the areas of technology development that the ATWG¹ recommend among others. Additionally, there are other stakeholders such as building, EV, EV charger and storage owners that can influence the performance of the grid. These stakeholders also face challenges to effectively manage their assets for customers while optimally operating with the grid.

Projects that promote high performing smart grid technologies, components and/or systems within the New York regulated electric service territories (Consolidated Edison, Orange and Rockland, New York State Electric and Gas (Avangrid), Rochester Gas and Electric (Avangrid), Central Hudson Gas and Electric, and

¹ Case 20-E-0197

National Grid) and meet the Program Requirements are eligible for funding under this solicitation. The program strives to coordinate its activities with the Climate Leadership and Community Protection Act. **All projects must demonstrate broad public benefits to New York State.**

Proposals will be evaluated in three distinct project categories listed below in Section III and scored on the evaluation criteria listed in Section VI of this solicitation. All the submissions will be reviewed by a scoring committee comprised of both internal NYSERDA staff and outside experts. All Proposals will be evaluated according to the quality and level of detail provided within page limits. Proposals must include substantive documentation addressing all scoring criteria items. NYSERDA, at its sole discretion, may ask for an in-person presentation of a Proposal before making a funding decision.

II. CHALLENGE AREAS

This program will have multiple rounds. Each round will have a challenge area from one or more utility, other stakeholder segment, and/or open to specific technologies of interest. Proposers should check each round for the specific challenge area or areas. NYSERDA reserves the right to add, delete, or modify any of the challenges over the course of the solicitation. Proposals in Round 3 should address one or more of the following challenge areas.

Round 3

1. **Improved transmission utilization**
2. **Power flow control devices**
3. **Energy storage for Transmission and Distribution services**
4. **Tools for improving operator situational awareness**
5. **Transformer monitoring**
6. **Advanced high-temperature, low sag conductors**
7. **Compact tower design**
8. **Distribution Energy Management Systems (DERMS)**
9. **Grid impacts from offshore wind integration**

[Proposals for topics not listed should contact the Designated Contact to determine eligibility.](#)

[Topics that are excluded from this solicitation are: Microgrids and Dynamic Line Rating.](#)

Questions regarding this round should be directed to the Designated Contacts, Michael Razanousky, 518-862-1090 ext. 3245, or Christopher Cheng, 518-862-1090 ext. 3436 or email smartgrid@nyserda.ny.gov

III. PROJECT CATEGORIES

This solicitation includes three project categories. **Proposers must indicate under which category they are proposing.** Proposers should give careful consideration under which category to propose, as Proposal requirements differ, so inappropriate choices could negatively affect project selection results. Proposers are encouraged to contact NYSERDA (see cover page for instructions) with technical questions to promote complete understanding of the project categories as described below. One or all project categories may be utilized in a single proposal.

Cost Sharing - The proposal should show non-NYSERDA funding that meets the minimum requirement of the total project cost. Cost sharing can be from the proposer, other team members, and other government or private sources. Contributions of direct labor (for which the laborer is paid as an employee) and purchased materials may be considered "cash" contributions. Unpaid labor, indirect labor, or other general overhead may be considered "in-kind" contributions. NYSEDA will not pay for efforts which have already been undertaken. The proposer or proposing team cannot claim as cost-share any expenses that have already been incurred.

Category	Maximum NYSEDA Funding Per Award	Total Project Cost Share
Category A: Product Development	\$ 3,000,000	50%
Category B: Demonstration	\$ 3,000,000	50%
Category C: Study	\$ 400,000	25%

Category A: Product Development

- Includes any work focused on bringing a new or improved product or service to market, including technical feasibility, business case feasibility, market analysis, proof of concept, product design, engineering, scale up, and field testing. Field testing is the stage in which a technology, not yet commercially available with a warranty, is operated in real world conditions with results used for product iteration, market validation, or customer engagement. Projects under this category include the development and commercialization of technologies and products for improving the resiliency, reliability, quality and efficiency of the electrical power delivery system. Note that bench-scale testing and field verification or testing may be included in Category A projects. Product Development projects may lead to a project proposal under Category B: Demonstration Projects to prove out the potential product or technology at a New York State site. **Note: Product Development projects are subject to NYSEDA's recoupment terms described in Section VIII.**

Category B: Demonstration

- A project intended to increase sales or usage of a commercialized product already in the marketplace, with results used to generate objective performance information for customers or policymakers. At this stage, the product is available for commercial sale and warranted. While incremental improvements may be incorporated based on the demonstration results, the final product design is essentially complete. Projects in this category **should not** include technology or product development tasks. If technology or product development tasks are necessary, consider proposing in Category A. Projects in Category B should demonstrate innovative new or under-utilized products or technologies in pioneering applications. Proposers must clearly identify whether the demonstration project will support either transmission or local distribution operations.

Category C: Study

- Projects under this category may explore effects and feasibility of new technology deployment, public policies, business models, planning methods, cost recovery models or other areas of analysis. Additionally, under this category studies that assess the design and effectiveness of demonstrating new or under-utilized technologies at a New York site.

NYSEDA reserves the right to negotiate the project category, scope of work, budget and funding levels on all awarded projects. Funding requests exceeding \$250,000 from NYSEDA shall be funded in phases separated by Go/No-Go decision points that will be evaluated by NYSEDA staff and the host utility.

Projects using multiple categories must also incorporate phases with Go/No-Go decision points. For example, a proposer may request consideration of a project that involves a Category A, Phase I Product Development, for product design of a new technology, then a Go/No-Go Decision into Phase II Category B, Demonstration, to validate performance.

- a. Projects with multiple categories shall briefly describe how it will complete the initial phase(s) and the following phase(s) along with significant milestones and provide an estimate of the total cost and schedule for each phase.
- b. Any contract awarded to fund projects with multiple categories does not in any way obligate NYSERDA to fund any more than the first phase. NYSERDA reserves the right to negotiate project Categories if it determines the project's efforts are a better fit for a different project Category.
 - i. NYSERDA anticipates issuing a contract with a maximum, "not-to-exceed" amount with subsequent phases only being awarded on a contingent basis as described below.
 - ii. NYSERDA reserves the right not to move forward with subsequent phases dependent on project success and availability of funding. Later phases may be funded if, in NYSERDA's sole discretion, milestones from the previous phase have been satisfied, there is still significant potential market impact, and sufficient program funds remain.
 - iii. NYSERDA expects it may award more contingent funding, due to project attrition, than is available for this program.
 - iv. At the end of each phase, project outcomes will be evaluated to determine if the project will continue to be funded.

Winning proposers will be expected to conduct review meetings for all Go/No-Go Decisions and completion of phases.

NYSERDA encourages teaming arrangements that compliment core competencies to increase probability of success and commercialization of technologies that yield New York State benefits. Teams may include commercial firms, manufacturers, large original equipment manufacturers (OEM), industry associations, research organizations, universities, government agencies, corporate strategic partners, strategic investors, end-users, and other stakeholders. Include letters of commitment from each identified team member in the appendix to the proposal. To the extent possible, the team member responsible for commercializing the technology should be the proposer.

If teaming arrangements cannot be accommodated to fulfill the entire scope of a challenge, NYSERDA will accept proposals that address the area of expertise of the proposer.

IV. PROGRAM REQUIREMENTS

Projects proposed for funding must:

1. Address an innovative technology that improves the resiliency, reliability, performance, efficiency and provide new services for the electric power grid while meeting or exceeding the requirement for the challenge area.
2. Provide direct and quantifiable energy, environmental, and/or economic benefits to New York State such as emissions reductions (such as greenhouse gases and criteria air pollutants), job creation, product manufacturing and sales, increased resiliency and reliability, higher efficiency, and reduced electric costs.

3. Include a project budget using the Attachment E, Budget Form, showing total project cost and proposer cost share. Include a cost-sharing breakdown by project task in the Statement of Work (Sample Statement of Work included as Attachment B).
4. Satisfy recoupment obligations to NYSERDA for any new technology or product development effort requesting cumulative NYSERDA funding over \$75,000 upon product commercialization (see terms and conditions in Attachment F, Sample Agreement).
5. Demonstrate that the proposer and/or team of proposers are qualified to carry out the submitted project proposal.
6. Provide a strong rationale as to how the project will overcome barriers impeding the implementation or adoption of any new or under-utilized technology.
7. For projects that develop technologies or products, emphasize development and/or applications of marketable products for near-term commercialization, rather than basic research, and provide an assessment of the addressable market, and discuss an appropriate commercialization path and potential for manufacturing in New York State. Note that even in early-stage projects, initial activities focusing on commercialization (or technology deployment) paths and challenges are essential to assessing benefits, risks, and future resource requirements.
8. For demonstration projects, clearly identify how this project will increase sales or usage of a commercialized product already in the marketplace, generate objective performance information for customers or policymakers, and how such demonstration will lead to increased use of the product in New York State. **Demonstration projects must be installed within New York State. See additional requirements for Demonstration Projects below.**
9. Provide a letter of commitment from all funding sources and partners.
10. Demonstrate that the project and funding request addresses the challenge with technology advancements that are not being addressed adequately by current industry practices and/or federal and/or other state research priorities and funding. Include a cost and New York statewide public benefit analysis to justify allocation of funds.
11. Conduct technology transfer meetings to the stakeholders in the state including the Joint Utilities of New York and the Department of Public Service Staff, industry and other utilities without disclosing utility-specific trade-secrets and/or intellectual property.

Other Considerations

- A proposal may be considered non-responsive if it fails to comply with the requirements of this solicitation.
- Prior to an award being made, potential contractors may be required to demonstrate access to financial resources sufficient to perform the proposed work, technical experience and adequate facilities (or the ability to access them), a good performance record, and the ability to qualify for an award under applicable laws and regulations.
- Preference will be given to proposers that provide higher cash contributions towards project costs.
- External funding partnerships are encouraged to leverage limited New York State resources. Proposers are encouraged to develop projects that leverage funding with external resources partners such as other research and development organizations.
- Proposers may be required to make an in-person presentation, at any time during the open solicitation period, to NYSERDA and/or host utility prior to a final decision being made.

ADDITIONAL PROGRAM REQUIREMENTS FOR CATEGORY B DEMONSTRATION PROJECTS ONLY

Projects selected for funding **must**:

1. Be installed within an appropriate timeframe that aligns with the challenge's schedule, but no longer than 24 months after contract execution unless a longer period is approved by the NYSERDA Project Manager.
2. Address safety issues, including public safety, that are applicable to the demonstration project.
3. Comply with all applicable building, fire, electrical, and interconnection codes, standards, and requirements.
4. Provide equipment sensors, instrumentation, and a complete data acquisition system for remote monitoring and reporting as specified below.
5. Demonstrate the technology viability and monitor the performance, characteristics, and benefits for a period adequate to meet project goals. If the period is under 18 months, the proposer must discuss why the proposed time is adequate. Unless the proposer demonstrates a compelling reason otherwise, at least 365 operating days of data will be required after commissioning.
6. Present an economic analysis of the proposed technology demonstration including an estimated benefit/cost analysis (BCA), and a plan to measure the actual BCA during the demonstration based on the host utility's BCA handbook. The ability to translate the results to other utilities' BCA handbooks. Commercially available proof of technology and its warranty is required.

Data Acquisition Requirements

NYSERDA intends to provide system level operation and performance information, including economic performance information, to all interested stakeholders (ex. New York electric utilities) and the general public on each of the demonstration projects funded under this solicitation. In order to meet this objective, each demonstration project must provide sufficient instrumentation and data transmittal, and analytical capabilities to allow the collection and analysis of technical and economic performance data.

The demonstration project proposal should include system operating data to be used for evaluation and generation of reports on the overall performance of the technology being demonstrated. Data acquisition sampling rates must be adequate to characterize the benefits and the value proposition of the proposed application. For example, sampling rates for applications designed to enhance power quality or system stability would be much higher than sampling rates for peak shaving or arbitrage applications. In the event that the demonstration system performs multiple activities, the system must provide for the collection of data for all activities. All raw and summary data collected at the project sites must be archived and protected from loss on permanent media.

Benefits Data Tracking and Reporting

Data sufficient to demonstrate the energy, environmental, and/or economic benefits defined in the proposal must be measured, collected, analyzed, and recorded. For applications that claim multiple benefits, the proposed data and analysis methods must adequately support the claimed benefit for each of the benefits specified in the proposal.

Reporting Requirements

The proposal must identify the project team member who will be responsible for the preparation and delivery of periodic written project reports. System operational summary information must be generated regularly and be included in progress reports. At a minimum, the system operational summary information must include the following:

- Raw data.
- System performance summary.

- Summary of system reliability and failure rates.
- A written summary of the economic benefit derived for the time period.
- A written summary of all operations and maintenance activities for the time period.
- System dispatch information and use patterns associated with the project, as appropriate.
- Energy consumption breakdown of parasitic loads introduced by the demonstration system, as appropriate.
- System performance under typical utility fault conditions, e.g., lightning strikes, primary phase to ground faults, voltage sags/spikes, electric outages, etc., as appropriate.
- System performance under user fault conditions, e.g., fault in customer plant, as appropriate.

Reports must be generated that consolidate all the information from the reports and summarize demonstration system performance for the preceding year.

Historical Performance Data Reporting

Where appropriate to document project benefits, historical utility system operational data prior to the installation of the demonstration system is required in order to provide credible baseline data on electrical system performance before and after the installation of the demonstration system. Information concerning load profiles, peaks, overloads, faults, power quality events, and any other information required to fully characterize the operation of the electrical utility at the demonstration site prior to installation of the demonstration system must be collected by the proposer for a reasonable period of time. Comparison information must be made part of the progress reports.

V. PROPOSAL REQUIREMENTS

Prior to Submission

Prior to submitting a Proposal to this solicitation, any proposers may communicate with NYSERDA's Designated Contact to discuss a concept and its potential responsiveness to this solicitation. Communication with NYSERDA staff prior to submission is entirely optional and is not required prior to submission.

Submissions and Review

Proposals determined to be compliant with application procedures and responsive to the solicitation will be subject to review by a scoring committee comprising NYSERDA, the host utility (for utility challenges) and external technical experts in accordance with Section VI, Proposal Scoring Criteria. Only the most technically meritorious Proposals will be awarded an invitation from NYSERDA to enter into a contract. Proposals not meriting an award for contracting may be debriefed.

To submit a Proposal, complete the Proposal Narrative form-fillable document as part of the PON (Attachment A). The Funding Category must be clearly indicated. The Proposal Narrative contains the following sections:

- Executive Summary
- Problem Statement and Proposed Solution
- State of Research and Technology Targets
 - Attachment C: Technology Readiness Level/Commercial Readiness Level Calculator
- Commercialization Potential of Proposed Product
 - Attachment D: Three-Year Financial Projections Worksheet

- Demonstration Project Information (Category B)
- Statement of Work (Attachment B) and Schedule
- Project Benefits
- Budget Form (Attachment E)
- Proposer Qualifications
- Letters of Support
- Attachments

Proposers must carefully review the Proposal Narrative to ensure that all required sections are completed. Failure to do so may result in the proposal being rejected as non-responsive.

Note: The proposer's goal should be to concisely present the information needed to fully address the scoring criteria (see Section VI). Proposals that grossly exceed the word limits or fail to follow the format guidelines may be rejected as non-responsive. Proposals deemed non-responsive will not be eligible for awards. If you believe proprietary information must be submitted to provide an adequate proposal, you must comply with the Section VIII instructions for submitting proprietary material. Unnecessary attachments beyond those sufficient to present a complete, comprehensive, and effective proposal may reduce, rather than increase, a proposal's standing per the scoring criteria. Each page of the proposal should state the name of the proposer, the PON number (PON 4393), and the page number.

VI. PROPOSAL SCORING CRITERIA

Proposals will be reviewed by a Scoring Committee and will be scored and ranked according to the following criteria. After the submissions are reviewed, NYSERDA will issue a letter to each proposer indicating its Proposal evaluation results. Proposers receiving favorable evaluations will be invited to enter into contract negotiations with NYSERDA. After initial review of the Proposal, the Proposer, at NYSERDA's sole discretion, may be asked to address specific questions or provide additional information, either in writing or through an interview, as part of the Proposal scoring process. The Proposer will be required to submit a detailed Statement of Work, Budget, and Schedule, and may also be asked to address specific recommendations of the Scoring Committee before contract award.

PROPOSAL SCORING CRITERIA:

Proposed Solution –

- Does the proposed project specifically address the problem or opportunity identified in the challenge area and does it show potential to make significant progress towards the goals?
- Is the proposed work technically feasible, innovative, and superior to alternatives?
- Is the solution likely to be effective in advancing the technology to market?
- How appropriate are the cost, technical, performance and commercialization goals for the proposed technology or product?
- Does the proposer exhibit an understanding of the state-of-the-art, competing products and alternative designs?
- Does the proposed solution have a high potential for commercialization, addressing demonstrated customer needs and significant markets?
- Is an appropriate performance monitoring and data analysis effort included in the proposal?
- How much of a commitment has been made for the field demonstration, if applicable?

Proposer / Team Qualifications –

- Has the proposer provided evidence of being qualified to perform the proposed work based on the qualifications of the organization(s) and the involved individual(s)?
- To what degree does the proposer and team have the necessary technical and business background and experience?
- Has the proposer's team previously commercialized any products?
- How firm are the commitments and support from essential participants: hardware/software vendors, end users/customers, developers etc.?
- Has the proposer provided evidence of good past performance on other relevant projects and quantified benefits to end-users?
- Are the team member's roles and responsibilities defined and reasonable?

Statement of Work and Schedule –

- Are the proposed tasks reasonable and complete in details to fully understand the execution plan and how they will achieve the goals of the challenge?
- Does the Statement of Work include a benefit cost analysis (BCA) of the technology based on the sponsor utility(ies)'s approved handbook?
- Is the Statement of Work well organized, complete, and appropriate for the technical performance identified?
- How realistic is the schedule for achieving the goals of the proposed project?
- Are Go/No-Go decision points incorporated at between logical task/phase completion and funding requests.

The following criteria apply to Category B projects only:

- Are the data acquisition, monitoring, and reporting plans reasonable and do they meet the requirements in Section IV, ADDITIONAL PROGRAM REQUIREMENTS FOR CATEGORY B DEMONSTRATION PROJECTS ONLY?
- Is the benefits tracking plan reasonable and does it meet the requirements in Section V, ADDITIONAL PROGRAM REQUIREMENTS FOR CATEGORY B DEMONSTRATION PROJECTS ONLY?
- If monitoring baseline utility system operation is necessary to document system benefits, does the Statement of Work include a provision to adequately gather baseline utility operational data and economics?

New York State Impact and Project Benefits –

- To what extent does the project support Climate Leadership and Community Protection Act and grid modernization in general for New York State?
- Will there be economic benefits in New York State in the form of subsequent manufacturing or technical service activity, intellectual property creation, revenue-generation, or job creation?
- How well are the potential benefits to New York State quantified?
- How likely is it that the projected benefits will be realized?
- Will the benefits be realized by disadvantaged communities in New York State?
- How significant are the potential reductions in GHG emissions or energy use resulting from the project?
- Are the technical risks identified, appropriately addressed, and balanced by project benefits?
- Does the proposal address an innovative technology that improves performance, quality or reliability / resiliency of the electric power system?

Project Cost and Value –

- Is the overall project cost justified and reasonable based on the level of effort proposed and the expected outcome and benefits?
- How significant is the potential market opportunity relative to the project cost?
- How appropriate are the proposer's co-funding contributions (sources and amounts) with respect to the degree of risk, potential to benefit from the work, and financial status of the organization?
- How firm are the commitments and support from essential participants, co-funders, and related businesses and other organizations?
- Are the overhead rates reasonable and supported with appropriate documentation?
- Are equipment, facility, material, and travel costs based on reasonable estimates?
- Are the labor rates reflective of the industry?

Business/Commercialization Plan –

- Does the proposed project scope show a clear path to widescale adoption by New York utilities, including development of rate cases for additional investment or other appropriate actions?
- How widely deployed can the technology be, both in New York and globally if successfully demonstrated?
- Does the proposer demonstrate a clear understanding of the steps required to overcome the barriers the challenge addresses?
- Does the proposal identify competing and alternate solutions, and clearly show why the solution is superior to, price competitive with, or provides value compared to alternative solutions or the current status quo?
- Is this the first application of the proposer's solution or is it expanding upon previous experience?

Other Program Policy Factors – In addition to considering how project Proposals satisfy the Scoring Criteria listed above, NYSERDA reserves the right to make funding decisions on the basis of other Program Policy Factors, including but not limited to:

New York State Energy Mission Alignment

- The degree to which the proposed project will advance the goals of the State Energy Plan / Clean Energy Fund / REV.
 - The State Energy Plan / Clean Energy Fund / REV goals include improving resilience and reducing greenhouse gas emissions. <https://rev.ny.gov/>
 - Project continues to contribute to one or more of NYSERDA's key statutory goals. <https://www.nyserda.ny.gov/About>

Program Portfolio Value and Optimization

- The degree to which NYSERDA ongoing funding, (incl. cost shares), will make a difference in the technology impact, acceleration of transformational advances and project success.
- The degree of overlap with other state and federal programs.
- The degree to which there are technical, market, organizational and/or environmental risks associated with the projects that outweigh the potential benefits.
- The past performance of the proposer on other technical and business endeavors, including NYSERDA and DOE, ARPA-E, NSF, (if the performance history is available).
- The degree of NYSERDA portfolio balance/optimization. The project(s) balance(s) and enhances the NYSERDA portfolio in one or more of the following areas:
 - Technological diversity

- Organizational diversity
- Geographic diversity
- Technical or commercialization risk
- Stage of technology development
- Complimentary efforts to balance risk.

Project Diversity, Leverage and Collaboration

- The consideration of the impact on, and benefits to, a diversity of communities/locations, including low-income and rural communities, partnerships with minority serving and/or owned businesses.
- The degree of ongoing leverage; attracting other funding sources: building on the NYS capabilities: linking technologies and/or companies.
- The degree to which the applicant has enabled the resources (human, financial and physical) to be able to complete the project.
- The degree to which the project enables collaboration with nongovernmental and industry entities for demonstration of technologies and research applications to successfully facilitate technology transfer, leading to robust technology development and subsequent scaling and market adoption.
- The degree to which a proposer could attract investor funding as the project progresses, including seed, Series A, high net worth individuals and beyond.

VII. RECOUPMENT AND METRICS

Recoupment - For any new projects exceeding \$100,000 in NYSERDA funding that involve product development, including business development, NYSERDA will require a royalty based on sales and/or licensing of the new product developed (Please see Attachment F, Sample Agreement for specific recoupment obligations). Recoupment is not required for demonstration projects. Please see the definitions below to determine if your project will be subject to recoupment. Please note that NYSERDA will make final determinations as to whether proposals fit within the demonstration or product development categories.

- Product Development: Includes any work focused on bringing a new or improved product or service to market, including technical feasibility, business case feasibility, market analysis, proof of concept, product design, engineering, scale up, and field testing. Field testing is the stage in which a technology, not yet commercially available with a warranty, is operated in real world conditions with results used for product iteration, market validation, or customer engagement. Projects under this category include the development and commercialization of technologies and products for improving the resiliency, reliability, quality and efficiency of the electrical power delivery system. Note that bench-scale testing and field verification or testing may be included in Category A projects. Product Development projects may lead to a project proposal under Category B: Demonstration Projects to prove out the potential product or technology at a New York State site.
- Demonstration: a project intended to increase sales or usage of a commercialized product already in the marketplace, with results used to generate objective performance information for customers or policymakers. At this stage, the product is available for commercial sale and warranted. While incremental improvements may be incorporated based on the

demonstration results, the final product design is essentially complete. Note: pilot deployments or other field demonstrations that will inform additional product development will be considered as a Product Development project and therefore subject to recoupment.

Projects where NYSERDA's share of funding is \$75,000 or less will generally not require recoupment. Please note: NYSERDA may decline to contract with awardees that are delinquent with respect to recoupment payments or sales reporting for any previous NYSERDA agreement.

Annual Metrics Reports – If awarded, the proposer will be required to submit to NYSERDA's Project Manager on an annual basis, a prepared analysis and summary of metrics addressing the anticipated energy, environmental and economic benefits that are realized by the project. All estimates shall reference credible sources and estimating procedures, and all assumptions shall be documented. Reporting shall commence the first calendar year after the contract is executed. Reports shall be submitted by January 31st for the previous calendar years' activities (i.e., reporting period). NYSERDA may decline to contract with awardees that are delinquent with respect to metrics reporting for any previous or active NYSERDA agreement.

VIII. GENERAL CONDITIONS

Confidential and Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes. The NYS Freedom of Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(2)(d) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted to NYSERDA that the proposer wishes to have treated as proprietary, and confidential trade secret information, should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to except it from disclosure, including a written statement of the reasons why the information should be excepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 <https://www.nyserda.ny.gov/About/-/media/Files/About/Contact/NYSERDA-Regulations.ashx>. However, NYSERDA cannot guarantee the confidentiality of any information submitted.

Omnibus Procurement Act of 1992 - It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises, as bidders, subcontractors, and suppliers on its procurement Agreements.

Information on the availability of New York subcontractors and suppliers is available from:

Empire State Development
Division for Small Business
625 Broadway
Albany, NY 12207

A directory of certified minority- and women-owned business enterprises is available from:

Empire State Development
Minority and Women's Business Development Division
625 Broadway
Albany, NY 12207

State Finance Law sections 139-j and 139-k - NYSERDA is required to comply with State Finance Law sections 139-j and 139-k. These provisions contain procurement lobbying requirements which can be found at <https://online.ogs.ny.gov/legal/lobbyinglawfaq/default.aspx>. Proposers are required to answer questions during proposal submission, which will include making required certification under the State Finance Law and to disclose any Prior Findings of Non-Responsibility (this includes a disclosure statement regarding whether the proposer has been found non-responsible under section 139-j of the State Finance Law within the previous four years).

Tax Law Section 5-a - NYSERDA is required to comply with the provisions of Tax Law Section 5-a, which requires a prospective contractor, prior to entering an agreement with NYSERDA having a value in excess of \$100,000, to certify to the Department of Taxation and Finance (the "Department") whether the contractor, its affiliates, its subcontractors and the affiliates of its subcontractors have registered with the Department to collect New York State and local sales and compensating use taxes. The Department has created a form to allow a prospective contractor to readily make such certification. See, ST-220-TD (available at http://www.tax.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf). Prior to contracting with NYSERDA, the prospective contractor must also certify to NYSERDA whether it has filed such certification with the Department. The Department has created a second form that must be completed by a prospective contractor prior to contacting and filed with NYSERDA. See, ST-220-CA (available at http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf). The Department has developed guidance for contractors which is available at <http://www.tax.ny.gov/pdf/publications/sales/pub223.pdf>

Contract Award - NYSERDA anticipates making multiple awards under this solicitation. NYSERDA anticipates a contract duration of up to three (3) years, unless NYSERDA management determines a different structure is more efficient based upon proposals received. A contract may be awarded based on initial applications without discussion, or following limited discussion or negotiations pertaining to the Statement of Work. Each proposal should be submitted using the most favorable cost and technical terms. NYSERDA may request additional data or material to support applications. NYSERDA will use the Sample Agreement (Attachment F) to contract successful proposals. NYSERDA may at its discretion elect to extend and/or add funds to any project funded through this solicitation. NYSERDA reserves the right to limit any negotiations to exceptions to standard terms and conditions in the Sample Agreement to those specifically identified in the checklist questions. Proposers should keep in mind that acceptance of all standard terms and conditions will generally result in a more expedited contracting process. NYSERDA expects to notify proposers in approximately six (6) weeks from the proposal due date whether your proposal has been selected to receive an award. NYSERDA may decline to contract with awardees that are delinquent with respect to any obligation under any previous or active NYSERDA agreement.

Recoupment - For any new product research and/or development, NYSERDA will generally require a royalty based on sales of the new product developed. NYSERDA's standard royalty terms are 1% of sales/ten percent (10%) of all license revenue accruing to the Contractor for products produced (for a period of fifteen years or until the Contractor pays NYSERDA an amount equal to the amount of funds paid by NYSERDA to the Contractor, whichever comes first).

Accessibility Requirements - If awardees from this solicitation will be posting anything on the web, or if the awardee will produce a final report that NYSEDA will post to the web, the following language must be included. NYSEDA requires contractors producing content intended to be posted to the Web to adhere to New York State's Accessibility Policy. This includes, but is not limited to, deliverables such as: documents (PDF, Microsoft Word, Microsoft Excel, etc.), audio (.mp3, .wav, etc.), video (.mp4, .mpg, .avi, etc.), graphics (.jpg, .png, etc.), web pages (.html, .aspx, etc.), and other multimedia and streaming media content. For more information, see [NYSEDA's Accessibility Requirements](#).

Limitation - This solicitation does not commit NYSEDA to award a contract, pay any costs incurred in preparing a proposal, or to procure or contract for services or supplies. NYSEDA reserves the right to accept or reject any or all proposals received, to negotiate with all qualified sources, or to cancel in part or in its entirety the solicitation when it is in NYSEDA's best interest. NYSEDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement. NYSEDA reserves the right to disqualify proposers based upon the results of a background check into publicly available information and the presence of a material possibility of any reputational or legal risk in making of the award.

Disclosure Requirement - The proposer shall disclose any indictment for any alleged felony, or any conviction for a felony within the past five years, under the laws of the United States or any state or territory of the United States and shall describe circumstances for each. When a proposer is an association, partnership, corporation, or other organization, this disclosure requirement includes the organization and its officers, partners, and directors or members of any similarly governing body. If an indictment or conviction should come to the attention of NYSEDA after the award of a contract, NYSEDA may exercise its stop-work right pending further investigation or terminate the agreement; the contractor may be subject to penalties for violation of any law which may apply in the particular circumstances. Proposers must also disclose if they have ever been debarred or suspended by any agency of the U.S. Government or the New York State Department of Labor.

Vendor Assurance of No Conflict of Interest or Detrimental Effect - The proposer shall disclose any existing or contemplated relationship with any other person or entity, including any known relationships with any member, shareholders of 5% or more, parent, subsidiary, or affiliated firm, which would constitute an actual or potential conflict of interest or appearance of impropriety, relating to other clients/customers of the proposer or former officers and employees of NYSEDA, in connection with proposer's rendering services as proposed. If a conflict does or might exist, please describe how your company would eliminate or prevent it. Indicate what procedures will be followed to detect, notify NYSEDA of, and resolve any such conflicts.

The proposer must disclose whether it, or any of its members, or, to the best of its knowledge, shareholders of 5% or more, parents, affiliates, or subsidiaries, have been the subject of any investigation or disciplinary action by the New York State Commission on Public Integrity or its predecessor State entities (collectively, "Commission"), and if so, a brief description must be included indicating how any matter before the Commission was resolved or whether it remains unresolved.

Public Officers Law – For any resulting awards, the Contractor and its subcontractors shall not engage any person who is, or has been at any time, in the employ of the State to perform services in violation of the provisions of the New York Public Officers Law, other laws applicable to the service of State employees, and the rules, regulations, opinions, guidelines or policies promulgated or issued by the New York State Joint Commission on Public Ethics, or its predecessors (collectively, the "Ethics Requirements"). Proposers

are reminded of the following Public Officers Law provision: contractors, consultants, vendors, and subcontractors may hire former NYSERDA employees. However, as a general rule and in accordance with New York Public Officers Law, former employees of NYSERDA may neither appear nor practice before NYSERDA, nor receive compensation for services rendered on a matter before NYSERDA, for a period of two years following their separation from NYSERDA service. In addition, former NYSERDA employees are subject to a “lifetime bar” from appearing before any state agency or authority or receiving compensation for services regarding any transaction in which they personally participated, or which was under their active consideration during their tenure with NYSERDA.

Any awardee will be required to certify that all of its employees, as well as employees of any subcontractor, whose subcontract is valued at \$100,000 or more who are former employees of the State and who are assigned to perform services under the resulting contract, shall be assigned in accordance with all Ethics Requirements. During the term of any agreement, no person who is employed by the contractor or its subcontractors and who is disqualified from providing services under the contract pursuant to any Ethics Requirements may share in any net revenues of the contractor or its subcontractors derived from the contract. NYSERDA may request that contractors provide it with whatever information the State deems appropriate about each such person’s engagement, work cooperatively with the State to solicit advice from the New York State Joint Commission on Public Ethics, and, if deemed appropriate by the State, instruct any such person to seek the opinion of the New York State Joint Commission on Public Ethics. NYSERDA shall have the right to withdraw or withhold approval of any subcontractor if utilizing such subcontractor for any work performed would be in conflict with any of the Ethics Requirements. NYSERDA shall have the right to terminate any contract at any time if any work performed is in conflict with any of the Ethics Requirements.

Due Diligence – NYSERDA, at its discretion, may conduct broad due diligence to validate any or all elements of an application and to assess applicants’ prospects of success, including gathering information to assess a proposal relative to any of the topics listed in evaluation criteria, whether or not such topic is explicitly addressed in a proposal. NYSERDA may conduct due diligence on some or all proposals based on NYSERDA’s current guidelines at the time of a review. NYSERDA staff may follow up with proposers to request additional information or clarification regarding applicant’s proposal, including questions regarding applicant’s business prospects and resources, whether or not those questions are specifically related to the elements of the proposal. Additionally, customized due diligence may be conducted by internal or external staff or contractors based on questions on any proposal raised by NYSERDA staff and/or the Scoring Committee. Due diligence may include (but is not limited to): interviews of independent references and background checks of team members; assessment of prior business experience of any team member associated with a proposal; research on intellectual property claims; customer and partner reference checks; market research on the applicants’ target market and any other related or possibly competitive technology or market area; research to validate any assumptions on current or future revenues, costs, capital needs, and financing prospects for proposers’ business, including similar (or unrelated) technologies, processes, or competitive solutions; or any other research that could reasonably inform the evaluation of a proposal, or the prospects for commercial success of the proposers’ business (whether directly related to, or unrelated to the specific elements in a proposal). Due diligence may include discussions with proposers’ former and current business partners, employees, investors, customers, and competitors. Due diligence may be conducted by NYSERDA personnel or contractors including members of the scoring committee, before, during, or after a scoring process, and prior to finalization of a contract award, any information gleaned in diligence may be used to score or re-score a proposal.

IX. ATTACHMENTS

Attachment A – Proposal Narrative Format

Attachment B – Statement of Work Template

Attachment C – TRL-CRL Calculator Workbook

Attachment D – 3 Year Financial Projection Worksheet

Attachment E – Budget Form & Instructions

Attachment F – Sample Agreement